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PHILADELPHIA NEUROLOGICAL SOCIETY.

Oct. 23, 1899.

The President, Dr. James Hendrie Lloyd, in the chair.

TWO CASES OF MUSCULAR DYSTROPHY (PSEUDO-MUSCULAR HYPERTROPHY) OCCURRING IN BROTHERS.

Dr. Charles S. Potts, presented two brothers, respectively 12 and 10 years. No similar disorder had been observed in the family. Neither boy walked until three years of age. No difficulty was experienced until the age of nine years, when weakness was first noticed in the legs. At present the older boy is unable to sit upright or stand. The movements of his arms, especially in elevation, are impaired. The muscles of his calves appear exceedingly large and unusually firm, and the infraspinal and deltoid muscles also appear to be well developed. The pectoral muscles and those of the back, thigh and upper arm are atrophied. The knee-jerks are absent. The muscles respond to the faradic current. The legs are cold to the touch and are cyanotic. A similar condition exists in the younger boy, but the disease is not so far advanced, and the boy is able to stand with some support.

A CASE OF INJURY OF THE SPINAL CORD WITH LOSS OF THE KNEE-JERK AND PRESENCE OF ANKLE-CLONUS,

FOLLOWED BY DISSOCIATION OF SENSATION OF HYSTERICAL ORIGIN IN NEARLY ONE-HALF THE BODY.

Dr. Charles S. Potts reported this case. The patient was 29 years of age. His family and previous history were unimportant. No evidence of any nervous disorder in the family or in the patient existed.

About two years ago, while trying to board a freight train, he fell and was struck in the back by the journal box. He at once completely lost power in both legs. He does not remember whether sensation was lost or not. When he was lifted up pain was felt in the back. In addition to the complete paraplegia, he was unable for four weeks to pass the urine except by using a catheter, but he knew when the bladder was full. From the end of this period he had incontinence for a space of several weeks. During this time the bowels were constipated, but if a purgative were given, he had no control of the sphincter. Priapism was also present. Two bedsores appeared over the sacrum and the legs wasted rapidly. In about two months improvement began. He regained control of his sphincters, and in the course of six months could walk with the aid of a cane. About this time he noticed one day while washing his hands that the water, which was hot, felt hot to the left hand but not to the right, and he noticed also that the skin upon his right shoulder had been considerably abraded without his knowing it and without causing pain. He was admitted to the University Hospital in June, and at that time examination showed that the heart and lungs were normal. Marked scoliosis in the dorso-lumbar region of the spine was found, the point of greatest deformity being at the eleventh dorsal, the other vertebræ involved being the ninth, tenth and twelfth dorsal and first lumbar. He walked with the aid of a cane and with a marked steppage gait. All the usual movements of the legs could be performed but with some difficulty. He said that the legs were not so large as before the accident, but atrophy was only noticeable in the tibialis anticus and peroneal muscles. All the muscles responded to the faradic current excepting the muscles just mentioned, and these required a strong galvanic current and An.Cl.C.=K.Cl.C. The plantar, cremasteric and abdominal reflexes were present on the left side, but absent on the right. Both knee-jerks were absent and ankle-clonus was present. Both sphincters were well controlled.

Anesthesia to touch, pain and temperature was found on both legs in an area reaching from just below the knee to the proximal ends of the toes, and involving the great toe. The posterior aspects of the legs were not involved. Loss of pain and temperature sense and preservation of tactile sense were found on the right side of the body in an area involving the face below a line drawn from the junction of the coronal and sagittal sutures to a point about half way between the angle of the jaw and the point of the chin; involving also the right half of the neck, the right arm, and all the right half of the body and right thigh, excepting an area on the buttock extending about three inches from the middle line and an area varying from two to four inches wide extending down the thigh posteriorly. There was no anesthesia of the special senses or in the mucous membranes or skin of the penis. The right testicle was not sensitive to pressure, but the left was. No spots of hyperesthesia existed.

Examination two months later showed that the same conditions were present except that the legs had become stronger. A plantar reflex was obtained on the right side, the ankle-clonus was much weaker, and the areas of total anesthesia had become much smaller. Dr. Mellor found a reversal of the color fields. Muscle sense was impaired in the right side, and the stereognostic sense was normal. When the plantar reflexes were examined the toes were flexed in the normal manner. There have not been any subjective nervous symptoms.

Dr. Francis X. Dercum said that the interpretation he would place upon this case was that the man had an actual spinal lesion due to trauma, and that in addition he had hysteria. The loss of thermal and pain sense which developed later, associated with reversal of the color fields, would suggest the hysterical nature. It is difficult to see how a lesion so low down could give rise to anesthesia extending so high up, even involving the face. A double lesion, however, was not excluded.

Dr. D. J. McCarthy reported a case of ambulatory automatism, probably of epileptic nature.

Dr. A. A. Eshner referred to a case which he had reported some years ago in a series of cases of hysteria in early life.* It was that of a girl of 16 years, who came to Dr. S. Weir Mitchell's clinic. Her mother said that on several occasions the girl had under peculiar circumstancs made long excursions—on one occasion so long as eighteen miles. On another occasion she misappropriated some money and went to Washington. She had had epileptic seizures. She was susceptible to hypnotism. While in her ordinary state she could not tell any of the stages in her trip to Washington, yet when hypnotized she could give many of the details. Dr. L. Witmer saw the patient in some of her hypnotic manifestations, and had the correctness of her statements tested. The father of this girl had some organic cerebral disturbance, the nature of which could not be ascertained; the mother was neurotic, and an aunt was a "mesmerist." The girl passed through the hands of a number of physicians. The last accounts of her were from reports in the newspapers. According to one account she was found under suspicious circumstances with a man in a disreputable neighborhood. On a later occasion the newspaper report gave an account of her suicide. Here, no doubt, there was a combination of hysteria with epilepsy in conjunction with ambulatory automatism.

Dr. William G. Spiller said that two or three years ago Dr. C. K. Mills and he had studied a case of ambulatory automatism in a young man who had epileptic convulsive attacks. He also had occasional intercurrent attacks of ambulatory automatism, in which he would try to leave the house, and on one occasion succeeded in doing so.

Dr. Francis X. Dercum remarked that ambulatory automatism associated with true epilepsy was not rare, but that in this case there were no other symptoms except the ambulatory attacks.

Dr. F. Savary Pearce reported the case of a man, aged 28 years. who had typical epileptic seizures, and during the last five years had had also attacks of ambulatory automatism. In the last year he had about three attacks. A peculiarity of the ambulatory condition is that it lasts a considerable length of time. He has been known to wander away from home and remain from one to six hours. During that time he is not aware of what he is doing, and is apparently in a condition of double consciousness. After the attack is over he is not able to report what he has done or said. He has been known to take the street car and pay his fare, and when he returned to his normal state was astounded at finding himself in some remote part of Philadelphia.

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*Pediatrics, August 15, 1897.

Dr. Wharton Sinkler said that a number of cases of the psychic equivalents of epilepsy without true convulsive seizures had been reported. Dr. Norman Henry had shown him a patient who had attacks similar to those in the case reported, but lasting a longer period; and in Dr. Henry's case no convulsive attacks had occurred.

Dr. D. J. McCarthy said that cases of epileptic automatism are not very rare, but the great majority of such attacks extend over hours, days, weeks, and sometimes months, and gradually merge into that condition known as double personality. The peculiarity of his case was the short duration, the attacks lasting only one to five minutes. It seemed more likely that these attacks should be truly epileptic than when they extend over a long time. There is always a question whether or not there is something more in these cases which may develop into double personality. In reports of the insane many accounts of cases are found in which the personality of the patient changes within a few weeks.

NOTE ON A CASE OF ACUTE POLIOMYELITIS

IN WHICH THE CEREBROSPINAL FLUID OBTAINED BY A QUINCKE PUNCTURE CONTAINED A DIPLOCOCCUS RESEMBLING THE DIPLOCOCCUS OF STERNBERG.

Dr. F. X. Dercum reported this case. The patient, a girl of two years, the fourth of five children of healthy parents, had always been a strong healthy baby. Her family history was negative as regards nervous or tuberculous affections. She had rubeola at one year of age, varicella at fifteen months and scarlet fever in April last, making a good recovery in each instance.

On September 2, 1899, while sitting on the second step leading to the porch of her home, she fell to the pavement. After a short "cry" she began to play, and the incident was forgotten. On the morning of September 9, the mother noticed that she tottered in walking, and that later in the day she was unable to stand. On putting her to bed she was found to have very little use of her arms and to be unable to hold up her head. The next morning, the paralysis was complete in arms, legs and neck. On the sixth or seventh day afterward a slight return of power in the left leg was noticed, and later in the right arm. Since then very little change has occurred.

At present there is no loss of sensation. The eye examination shows the pupillary reflexes to be normal, with no disease of the eyeground. Hearing is normal. There are no cardiac or pulmonary lesions. There seems to be no involvement of the mental faculties. There are alternate periods of irritability and quietude. She does not suffer pain and apparently has no headache. Constipation is marked. No involvement of sphincters. No retraction of head or abdomen.

At the request of Dr. Dercum, Dr. W. W. Keen made a

Quincke puncture; the fluid obtained was submitted to Professor William M. L. Coplin for examination, who reported as follows:

"Specimen consists of 2 cc. of clear fluid, watery in color.

"Microscopic examination in fresh state shows a few leucocytes and a small quantity of granular debris.

"Specimens stained by gentian violet and by Gram's method show numerous micrococci about .9 M. in diameter and arranged in pairs and extracellular; they stain by Gram's method, and morphologically and tinctorially they resemble the diplococcus of Sternberg.

"Inoculations on glycerin agar and blood serum failed to show any growth after incubation for 48 hours."

Dr. F. X. Dercum also reported a case of right-sided hemiplegia with hemianesthesia, right homonymous hemianopsia, jargon aphasia, Wernicke's pupillary reaction sign, and neuritic pain in the arm of the paralyzed side.

Dr. Joseph Sailer reported a case of sensory equivalent for the epileptic attack.

A CASE OF MIGRAINE WITH APHASIA, AND NUMBNESS IN ONE ARM.

Dr. S. McC. Hamill reported a case of migraine occurring in a young man aged 20 years. His father was a healthy, temperate man up to the time of the patient's birth. His mother, who died at about 40 years of age, apparently as the result of an apoplexy, was subject to violent attacks of migraine for a number of years. There exists a distinct lithemic inheritance on his mother's side. His health had been very good up to the age of 17 years. At this time he began to have mild attacks of hemicrania. In the beginning they were infrequent and unaccompanied by premonitory signs. After a few months' rest from his studies the headaches ceased, but as soon as his work was resumed they recurred again with greater severity at intervals of from four to six weeks, and were then for the first time preceded by the following phenomena, which have been present in all of his attacks up to the present time: He first experiences a visual disturbance which suggests a rotary scotoma; at almost the same instant he experiences a peculiar sensation in the epigastric region, which he has difficulty in describing, but which he says is superficial and relieved by removing the pressure of his clothing. Within a few minutes there develops numbness with loss of sensation; first in the little finger, passing in succession from the little finger to the thumb and rarely involving more than two fingers at a time. This sensation rapidly extends to the hand and up the forearm to, but never beyond, the elbow. Usually following this, and only in some attacks, he experiences a sensation of numbness in his upper lip; one side of the nose (the side corresponding to that in which numbness in the forearm exists), and the entire tongue. On two or three occasions he has had difficulty with his speech. He has perfect knowledge of what he wishes to say, but is incapable of expressing himself. His head pain begins very shortly after these manifestations. It is always primarily unilateral, on the side of the head opposite to the side of the body in which the numbness exists. The pain in some attacks is extremely severe. It gradually disappears, and ordinarily terminates in from three to six hours. The premonitory phenomena usually persist from 20 minutes to a half-hour, disappearing gradually. Preceding and during the attacks the patient is quite restless, and apparently much frightened at the character of his symptoms. His health in the intervals between the attacks is fairly good. He has some disturbance of his digestion which is always exaggerated immediately preceding the attacks. There is no evidence whatever of mental deterioration, and there has never occurred anything which in any way resembled a convulsive seizure.

THE RELATION OF MIGRAINE TO EPILEPSY.

Dr. William G. Spiller reported two cases showing a relation between epilepsy and migraine, especially between epilepsy and the complex form of migraine.

The first patient had been referred by Dr. S. Solis-Cohen. He was a man fifty-one years old and had used alcohol since his eighth year and smoked to excess. He began when about forty-four years old to have numbness in the right side of the tongue and inability to speak. These attacks lasted a minute or two. The attacks occurred at first only once or twice a year, but are now frequent. When about forty-eight years old he began to have similar attacks of numbness in his right upper limb, and after a short time in his right lower limb; these attacks lasting a minute or two. The numbness of the hand was attended with weakness of the part. The paresthesia had always been confined to the right side of the body and had been associated with impaired function, as shown by loss of speech and the weakness of the hand. Consciousness was not lost during these attacks. The attacks in which unconsciousness occurred—only seven in all, and these within the last two years—began after the attacks of numbness had existed for some time, and they were preceded by an aura—a feeling of unusual good health followed by drowsiness. The bewilderment following an attack of unconsciousness, and a peculiar cry preceding the attack, were quite characteristic of epilepsy. No convulsions had occurred, except in one attack within the last ten days, in which the upper limbs had become rigid for a few moments and the eyes were drawn upward. A slight tremor had been noticed a few times.

The second patient, a woman, was seen with Dr. S. M. Hamill. She suffered from attacks of paraphasia and unilateral headache with transitory paralysis and paresthesia on the side of the body opposite to the headache. The attacks began at the age of four and a half years after a severe fall upon the head. The case was one that would usually be called complex migraine.

Dr. Spiller referred to the literature on migraine and epilepsy. The severe forms of complex migraine may be regarded as "associated with" epilepsy, if one so pleases, but when epilepsy occurs with migraine it is well to recognize that there is probably some connection between the two diseases, and that it is not merely a chance occurrence of two affections in the same person. The important fact is, that a person who has a complex form of migraine, with temporary aphasia, paralysis and paresthesia, may some day have Jacksonian convulsive attacks. Whether this condition is to be regarded as epilepsy "associated with" migraine, or the whole is to be considered an epileptic manifestation, can be determined only after we understand better the pathology of the two diseases. It may be that complex migraine and epilepsy have the same cause in some cases, or it may be that migraine changes the structure of the brain and renders it liable to the epileptic disease. In some cases of epilepsy a history of migraine in the ancestors has been obtained.

Dr. Charles K. Mills said that his own tendency was to view true migraine and true epilepsy as distinct diseases, chiefly for the reasons presented in Dr. Spiller's paper. The non-occurrence of mental deterioration in cases of undoubted migraine is a very important point in differentiating the two diseases. Not only is migraine not usually associated with mental deterioration, but it is a disease very frequently present in persons of high mental attainments and great powers of cerebral resistance to outside impressions. He referred to a family in which migraine has been distinctly present in five generations. The presence of this disorder can be easily traced in two generations at present living. In this long line the mentality and general cerebral activity and strength have been good. As a matter of fact, we have epilepsy and epilepsy, if we choose to apply this term to some of the affections considered in this discussion, and to some other affections not mentioned. Of course, we cannot help recognizing the striking similarity in various particulars between migraine and epilepsy. He did not think that too much stress should be laid upon the argument in favor of the identity of the two diseases, because these disorders are, in some instances, associated; or even because, as in some reported cases after the lapse of much time, motor paroxysms have appeared in the life history of a case of migraine.

Dr. Wharton Sinkler thought that there was a very close connection between epilepsy and migraine, but that it does not always follow that all types of migraine are associated with epilepsy. There are several types of migraine. One form depends on the uric acid diathesis, and there is another form in which the paroxysms seem to occur like those of epilepsy, without any appreciable cause. He thought that the relationship between epilepsy and migraine had been recognized for many years, and that a heredity of migraine in the epileptic is more frequent than a heredity of epilepsy. He believed that of the different forms, the ophthalmic type is more closely associated with epilepsy than the other forms.

Dr. F. S. Pearce said that an important point in the etiology was the presence or absence of indican in the urine. In both Dr. Sailer's and Dr. Hamill's cases there were well marked gastro-intestinal symptoms, and in the former indicanuria was noted. The question of autointoxication is to be borne in mind in the pathogenesis of some cases of epilepsy and migraine; and in the therapeutics of such cases, the gastro-intestinal tract should be carefully treated. The subject of indicanuria certainly has some weight in these cases in pointing toward toxic etiology.

Dr. James Hendrie Lloyd thought that there was no true ground for a confusion of diagnosis between migraine and epilepsy. The explosive neuroses, migraine, epilepsy and hysteria, undoubtedly have points in common, but he thought that they were not points of identity. Points of especial importance in the diagnosis are convulsion and loss of consciousness. There can be epileptic attacks without loss of consciousness and also without true convulsive attacks, but where there is loss of consciousness with a convulsive attack, there is an epileptic element. We do not have convulsive attacks or loss of consciousness in migraine. Exceptional cases have been reported, but he thought that the statement would hold good. The rare ophthalmoplegic migraine is rather a distinct species of migraine. It is not, as a rule, associated with convulsive attacks but with loss of power in some of the orbital muscles, which may last for days or weeks. A great error in nosology would be committed by classing all cases of migraine as sensory epilepsy. Migraine is different from epilepsy in its onset. It usually begins with some disturbance of vision. In some cases it begins with a sensory alteration in another part than the eye. In one of his patients the attack begins with numbness in a finger. This mounts gradually to the shoulder and disappears—the sensory aura not going up like a flash and ending in unconsciousness, but mounting slowly during fifteen or twenty minutes, and as it slowly passes away giving place to the characteristic headache. These points enable us to distinguish without difficulty between epilepsy and migraine.

Dr. Lloyd said that Dr. Spiller had found some cases, largely of this type of ophthalmoplegic migraine, where there seemed to be some epileptoid convulsions, but the speaker considered ophthalmoplegic migraine as of a special type or something more than ordinary migraine. Because in a few such cases there were slight epileptic phenomena, he thought that it did not give us a right to say that there was a distinct relationship between epilepsy and migraine, any more than between hysteria and epilepsy.

The fact that we may have the phenomena of epilepsy combined with those of migraine does not prove that the diseases are identical.

There can be the association of two neuroses in the same individual, as hysteria and epilepsy. This may be the explanation of some cases of epilepsy and migraine.

Dr. Francis X. Dercum was inclined to accept the view of the President, Dr. Lloyd, that these two diseases are separate entities, but that they do overlap in symptomatology, and that there may be infrequent cases in which it is difficult to say whether the case is one of migraine or of epilepsy. He believed also that they are diseases which in the main pursue an essentially different course.

Dr. Wharton Sinkler said that it was not so much a question of making the diagnosis between migraine and epilepsy as it was whether migraine resembles epilepsy and may coexist in the same patient, or if it is a forerunner of epilepsy. In his opinion the latter is not infrequently the case. In regard to the intellectual state of epileptics, it is well known that there have been a number of epileptics who have been very brilliant intellectually.

Dr. D. J. McCarthy thought that in these cases we lost sight of the reflex effect of pain in the production of a convulsive tendency. Irritation of the sciatic nerve will produce true epileptiform convulsions in the rabbit. He referred to the case of a man with a leg ulcer in the surgical ward of the Philadelphia Hospital who had had epilepsy when a child, but who had not had an attack for twenty or twenty-five years. One day the ulcer was curetted, causing intense pain with the production of a severe epileptic convulsion. Every time the ulcer was dressed there was such pain that a convulsion occurred. This case showed the reflex action of pain in the production of epileptiform convulsions. Where there is intense pain in an attack of migraine the reflex effect of pain in an unstable nervous constitution may explain the epileptiform attack.

Dr. William G. Spiller thought that there was some truth in the statement that gastro-intestinal disturbance may have some bearing on migraine and epilepsy. He considered the view of Dr. McCarthy, that pain may aid in the production of epilepsy, as plausible. It has been demonstrated that in long-continued neuralgia the blood vessels undergo change. Migraine may be due to a temporary vascular disturbance, and possibly may cause organic disease of the vessels, which in turn may lead to alteration of cerebral tissue. We know little of the pathology of migraine or epilepsy. That there is a clinical resemblance between the complex forms of migraine and epilepsy can hardly be doubted. Ordinary migraine does not as a rule, pass into epilepsy, and remains as simple migraine indefinitely; but temporary aphasia, temporary unilateral paralysis and paresthesia on the side opposite to the headache, seem to indicate that a grave disturbance is occurring in one cerebral hemisphere, and it is not surprising if symptoms of cortical irritation—convulsions—finally appear.